Does Felon Re-enfranchisement Reduce Black Criminalization?

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## Contents

1 Introduction and Descriptive Statistics

Criminal justice activists today advocate for the re-enfranchisement of former felons (who are mostly black), hoping that these reforms can improve the political outcomes for black Americans. One of the political outcomes is the reduction of black over-representation in the criminal justice system i.e. black criminalization. In her book, *The New Jim Crow*, Michelle Alexander argues that the preponderance of black criminalization following the Civil Rights movement is the result of a new form of racial discrimination – a continuation of the racial caste legacy of slavery and Jim Crow. One main consequence of criminalization is that many states do not allow former felons the right to vote after serving a prison sentence (even for petty crimes) among many other denial of rights such as workplace discrimination. Therefore, with a wave of states granting former felons the right to vote in recent years, do we see a reduction in black criminalization following voter reforms?

To do this, we will be investigating the effects of re-enfranchisement on total arrests and drug arrests with specific attention to black population and total population between the years of 1999 – 2021. For simplicity, we will only consider three types of re-enfranchising rules i.e. states granting the vote after felons served their sentence, after parole, and after probation.

Since black arrests per black population is not included, I instead introduce another dependent variable that captures some form of black criminalization i.e. ratio of black arrests per capita to total arrests per capita within a state. Ratio of black arrests to arrests indicate the representation of black people in the pool of arrested people. This measurement is biased as it will increase the weight on states with high proportion of black populations – the higher the black proportion of populations, the higher the likelihood of getting a high ratio. However, I argue that this measure captures the over-representation of black people in the criminal justice system. On average across all states even states with small black population, black people are vastly over-represented in arrests; therefore, I am interested in studying how these voting reforms decrease the representation of black people among the pool of arrested people i.e. I proxy black criminalization with this ratio.

	Obs.	Mean	St. Dev.	Min.	Max.
Total arrest over population	1065	4.635	1.428	0.832	12.207
Total arrest for Afr. Am. over population	1065	1.175	1.059	0.000	5.776
Drug arrest over population	1065	0.435	0.198	0.047	1.740
Drug arrest for Afr. Am. over population	1065	0.134	0.147	0.000	1.293
Black Arrests to Total Arrests Ratio	1065	0.239	0.171	0.000	0.712
Black Drug Arrests to Total Drug Arrests Ratio	1065	0.266	0.188	0.000	0.800

Table 1.1: Summary Statistics of the Relevant Variables
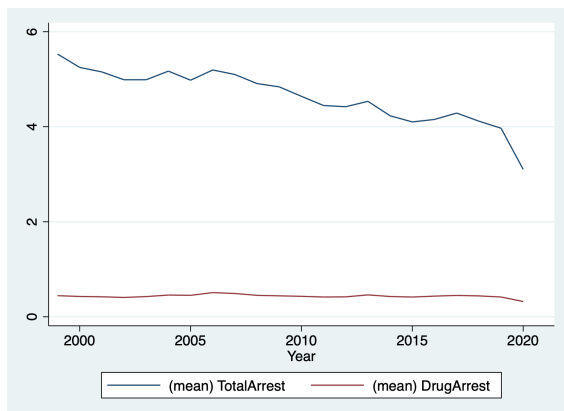
(a) Total Arrest and Drug Arrests Trend
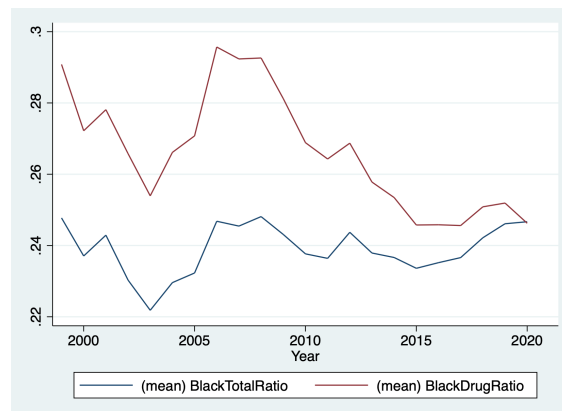
(b) Black to Total Ratios

Figure 1: Arrests and Black to Total Ratios

There is a general downward trend on arrest and drug arrests from 1999 – 2021. There is also a general downward trend for black drug arrest ratio to total drug arrest ratio, but the reverse is true for total arrests. However, the ratio is still concerning because although black people make up about 13.6% of the population, they make up on average 26.6% of all drug arrests and 23.9% all arrests – a sign of over-representation of black people in the criminal justice system. Interestingly, the 2020 level of black to total arrest ratio is more or less the same as 1999.

2   OLS Analysis and Why it Does Not Work?

2.1   OLS Issues

The most intuitive approach to investigate the correlation between re-enfranchisement and political outcomes is to conduct an OLS as such where i is an arbitrary state:

$$Y_{it} = \beta_0 + \beta_1 VotingRule_{it} + \beta_p X_{pit} + \epsilon_{it}$$

where Y_{it} is our desired outcome variable such as total arrest per population or black to total (drug) arrests ratio for a state i in year t and VotingRule takes a value 1 if the state implements a voting rule (could be vote after prison, after probation, after parole) and takes a value 0 if the state does not implement that voting rule. X_{pit} are the set of controls and ϵ_{it} is the error term.

Before we go on the results, there are several issues of utilizing the OLS design:

- Selection bias. The OLS design assumes we can simply compare states that have more restrictive voting rules and states with more liberal voting rules. Suppose that Y_{1it} and Y_{0it} are potential outcomes for the outcome variable and given that

$$E[Y_{it}|VotingRule = 1] - E[Y_{it}|VotingRule = 0] =$$
$$E[Y_{1it} - Y_{0it}|VotingRule = 1] +$$
$$(E[Y_{0it}|VotingRule = 1] - E[Y_{0it}|VotingRule = 0])$$

  where the first line is our desired quantity i.e. average treatment effect. The second line is the average treatment effect on the treated. If we can observe an alternative world for a treated state in which they were not treated, then for our OLS to work the outcome of the alternative world must equal to the outcome of the state that were not assigned the treatment. This is not a fair comparison because states that chose to liberalize may have different characteristics than states that do not. And because we cannot define a set of variables that will explain every variation between states with different voting laws, we can never be sure if selection bias can disappear in the OLS. Since we cannot be sure of where the bias goes, we can never be sure the direction of the bias, whether it is biased upward or downwards. Of course, if there is a government willing to randomize the voting laws among states we can eliminate the bias term.

- Reverse Causality. The OLS design we picked assumes that the voting rule cause the arrest

rates to go down (or up). However, without any theoretical framework, how can we ensure that legislators choose to liberalize voting rule when they see a drop or rise in arrests. In fact, if we pick the arrests as treatment and felon enfranchisement as our outcome we get a significant negative coefficient (see the appendix).

2.2 OLS Results

	Total Arrests Per Capita			
	(1)	(2)	(3)	(4)
Felon enfranchised after prison	−1.438***	−1.067***	−1.060***	−1.050***
	(0.084)	(0.083)	(0.083)	(0.084)
Felon enfranchised after parole	−1.364***	−1.066***	−1.027***	−1.016***
	(0.079)	(0.076)	(0.078)	(0.078)
Felon enfranchise after probation	−0.934***	−0.783***	−0.758***	−0.712***
	(0.110)	(0.095)	(0.096)	(0.098)
Obs	1065	1019	1019	963
Population Controls		✓	✓	✓
Economic Controls			✓	✓
Political Controls				✓

Note: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Population controls include share of black people, hispanic people, black people in 2000 and hispanic people in 2000, under-19, and over 65 population. Economic controls include GDP per capita, growth rate of GDP, unemployment, state surplus/deficit. Political control includes agencies, indicator of governorship party, the party with majority in the state legislature, and the difference in parties between the governor and the legislature.

Table 2.1: Regression of Arrests Per Capita Against Various Voting Rules

	Drug Arrest Per Capita			
	(1)	(2)	(3)	(4)
Felon enfranchised after prison	−0.129***	−0.055***	−0.054***	−0.044***
	(0.013)	(0.013)	(0.013)	(0.014)
Felon enfranchised after parole	−0.109***	−0.044***	−0.049***	−0.041***
	(0.012)	(0.012)	(0.012)	(0.013)
Felon enfranchise after probation	−0.084***	−0.067***	−0.069***	−0.061***
	(0.016)	(0.014)	(0.014)	(0.015)
Obs	1065	1019	1019	963
Population Controls		✓	✓	✓
Economic Controls			✓	✓
Political Controls				✓

Note:***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Population controls include share of black people, hispanic people, black people in 2000 and hispanic people in 2000, under-19, and over 65 population. Economic controls include GDP per capita, growth rate of GDP, unemployment, state surplus/deficit. Political control includes agencies, indicator of governorship party, the party with majority in the state legislature, and the difference in parties between the governor and the legislature.

Table 2.2: Regression of Drug Arrests Per Capita Against Various Voting Rules

	Black to Total Arrest Ratio			
	(1)	(2)	(3)	(4)
Felon enfranchised after prison	−0.093***	0.012**	0.011**	0.011**
	(0.011)	(0.005)	(0.005)	(0.005)
Felon enfranchised after parole	−0.098***	0.006	−0.000	−0.003
	(0.010)	(0.005)	(0.005)	(0.005)
Felon enfranchise after probation	−0.030**	0.001	−0.002	−0.003
	(0.014)	(0.006)	(0.006)	(0.006)
Obs	1065	1019	1019	963
Population Controls		✓	✓	✓
Economic Controls			✓	✓
Political Controls				✓

Note:***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Population controls include share of black people, hispanic people, black people in 2000 and hispanic people in 2000, under-19, and over 65 population. Economic controls include GDP per capita, growth rate of GDP, unemployment, state surplus/deficit. Political control includes agencies, indicator of governorship party, the party with majority in the state legislature, and the difference in parties between the governor and the legislature.

Table 2.3: Regression of Black to Total Arrest Ratio Against Various Voting Rules

	Black to Total Drug Arrest Ratio			
	(1)	(2)	(3)	(4)
Felon enfranchised after prison	−0.093***	0.018***	0.018***	0.018***
	(0.012)	(0.007)	(0.007)	(0.007)
Felon enfranchised after parole	−0.099***	0.010	0.003	−0.003
	(0.011)	(0.006)	(0.006)	(0.006)
Felon enfranchise after probation	−0.048***	−0.014*	−0.017**	−0.021***
	(0.015)	(0.007)	(0.007)	(0.007)
Obs	1065	1019	1019	963
Population Controls		✓	✓	✓
Economic Controls			✓	✓
Political Controls				✓

Note: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Population controls include share of black people, hispanic people, black people in 2000 and hispanic people in 2000, under-19, and over 65 population. Economic controls include GDP per capita, growth rate of GDP, unemployment, state surplus/deficit. Political control includes agencies, indicator of governorship party, the party with majority in the state legislature, and the difference in parties between the governor and the legislature.

Table 2.4: Regression of Black to Drug Total Arrest Ratio Against Various Voting Rules

2.3   OLS Discussion of Results

Adopting a voting rule that gave felons the right to vote after serving prison is associated with

- 1.438 point decrease in total arrest per capita

- 0.129 point decrease in total drug arrest per capita

- 9.3 percentage point decrease in black to total arrest ratio

- 9.3 percentage point decrease in black to total drug arrest ratio

Adopting a voting rule that gave felons the right to vote after serving parole is associated with

- 1.364 point decrease in total arrest per capita

- 0.109 point decrease in total drug arrest per capita

- 9.8 percentage point decrease in black to total arrest ratio

- 9.9 percentage point decrease in black to total drug arrest ratio

Adopting a voting rule that gave felons the right to vote after serving probation is associated with

- 0.934 point decrease in total arrest per capita

- 0.084 point decrease in total drug arrest per capita

- 3.0 percentage point decrease in black to total arrest ratio

- 4.8 percentage point decrease in black to total drug arrest ratio

Impact wise, the right to vote after prison and after parole seemed to have similar effects – this could be partly driven by states giving felons the right to vote for both parole and prison at the same time, whereas after probation has a weaker policy effect which is expected considering probation is the most restrictive among the three voting rules. However, this result has a major flaw in the black to total (drug) arrest ratio because controlling for many factors change the signs of some coefficients or render it significant – a strong indicator of the omitted variable bias. The total (drug) arrest per capita however survives after putting controls.

3   The Event Study

3.1   Callaway-Sant'Anna Critique of the TWFE

As a result of the weaknesses of the two-way fixed effects (TWFE) in identifying causal effects[1], Callaway-Sant'Anna came up with the idea that units that are treated together for the first time can be grouped; causal effects should be measured in terms of groups that receive treatment at the same time. In our context, treatment is defined as states adopting a voting rule such as allowing felons the right to vote after serving a prison sentence. Therefore, Callaway-Sant'Anna's difference-in-differences (DiD) estimator avoided the problem in TWFE of comparing units that are newly treated with the already-treated – e.g., if there are 5 periods and group A was treated in time 2, our counterfactual path for group A can be made up of groups that are treated in time 3,4,5, or never-treated.

Callaway-Sant'Anna introduced $ATT(g,t)$ which is defined by the group-time average treatment effect i.e. average treatment effect for the units treated in time g, in period t (Callaway and Sant'Anna 2021). For example, the canonical DiD measures $ATT(2,2)$ which is the ATT for units treated in $t = 2$, measured in $t = 2$.

$$ATT(g,t) = E[Y_t(g) - Y_t(0)|G = g]$$

where $Y_t(g)$ is the outcome of the state adopting a voting rule (first at g) measured at time t and $Y_t(0)$ is the counterfactual measured at time t given that the state adopts the rule at time g.

Here are the main assumptions for the Callaway-Sant'Anna DiD to hold.

- Irreversibility of Treatment. If suppose a unit i is treated at $t = 2$, then $\forall t \geq 2, D_{it} = 1$. D_{it} is the indicator variable for treatment for unit i. States that adopt a voting rule will be treated even if they repeal at a later date.

- Parallel trends for Never-Treated groups i.e. $\forall t \geq g$,

$$E[Y_{0it} - Y_{0i(t-1)}|G = g] = E[Y_{0it} - Y_{0i(t-1)}|C = 1]$$

  given that G is the period of first receiving treatment C is the indicator for never treated and Y_{0it} is the counterfactual for not receiving treatment. This assumption allow us to make the comparison between the newly-treated and the never-treated.

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[1]TWFE requires that the treatment effect is constant across unit and time periods i.e. the effect on arrests after re-enfranchisement for Rhode Island in 2006 should be the same as California in 2020. TWFE can work for 2-periods. In this case, the TWFE is equivalent to the canonical DiD. (Borusyak et. al 2022, Roth et. al 2022)

- Parallel trends for Not-Yet Treated groups i.e. $\forall t \geq g$

$$E[Y_{0it} - Y_{0i(t-1)}|G = g] = E[Y_{0it} - Y_{0i(t-1)}|D_{it} = 0, G \neq g]$$

This assumption allow us to make comparison between the newly-treated and the not-yet treated groups.

Another issue that arises is the way to aggregate the $ATT(g,t)$ to answer our question – families of $ATT(g,t)$ is useless unless we have a scheme that answer our question. Does felon re-enfranchisement reduce black criminalization? Therefore, the most appropriate scheme to answer is through summarizing the effect of implementing a voting rule on black criminalization after an arbitrary time e i.e. how does the effect of voting rule change vary over time on black criminalization? Following Callaway-Sant'Anna, the statistic is given as such for time period $t = 1, 2, \ldots, k$, where $\theta_D(e)$ is the effect of changing the voting rule after e periods on black criminalization:

$$\theta_D(e) = \sum_{g=2}^{k} \mathbf{1}\{g + e \leq k\} ATT(g, g + e)\mathbb{P}(G = g|G + e \leq k)$$

where $\mathbf{1}\{g + e \leq k\}$ is the indicator to ensure $g + e$ does not exceed our time horizon and $\mathbb{P}(G = g|G + e \leq k)$ is the proportion of units that were treated at time g given that the treatment timing and the time elapsed after receiving treatment doesn't exceed our time horizon.

Another notable aggregation scheme is the average treatment effect for participating in treatment separate for each group g given by $\theta_s(g)$ i.e.

$$\theta_s(g) = \frac{1}{k - g + 1} \sum_{t=2}^{k} \mathbf{1}\{g \leq t\} ATT(g, t)$$

which gives us our third aggregation scheme, the overall ATT:

$$\theta_s^O = \sum_{g=2}^{k} \theta_s(g)\mathbb{P}(G = g)$$

There are also several issues with the Callaway-Sant'Anna design specifically:

- Anticipation effect. Some states such as California, Colorado, Nevada, and New York implemented the vote after prison reform before the 2020 general election – Nevada especially is a swing state where prior to 2020 their state legislature is Democratic. Therefore, there is

a concern here where these states enfranchise former felons to give the Democratic party an edge over the Republicans.

- Potential SUTVA violation. Since felon re-enfranchisement has become salient in recent years, the timing of the adoption of these reforms in states may be correlated to the salience of felon re-enfranchisement among Democrat-controlled states i.e. adoption timing between states maybe correlated to the underlying partisan trends in national-wide Democrat platforms.
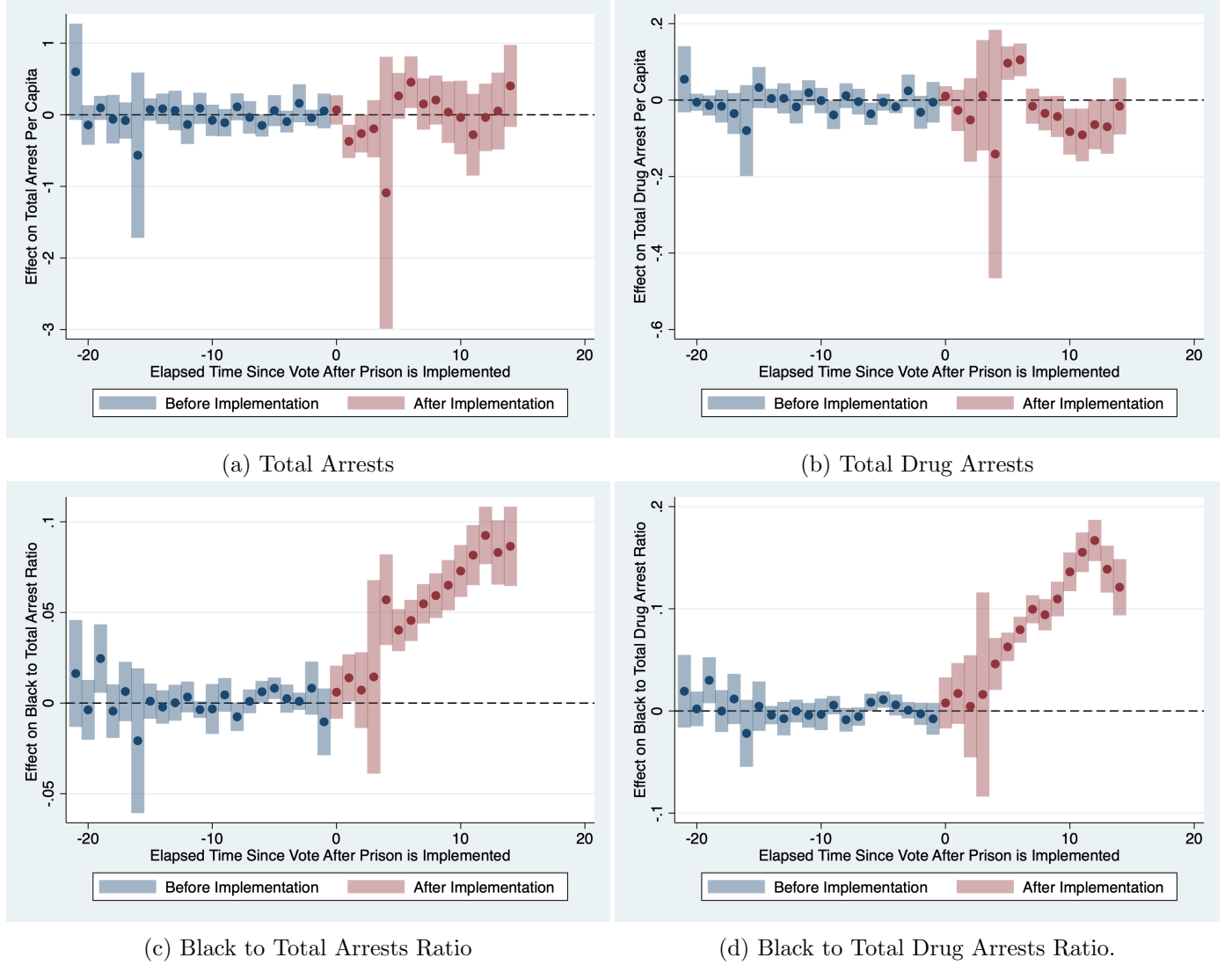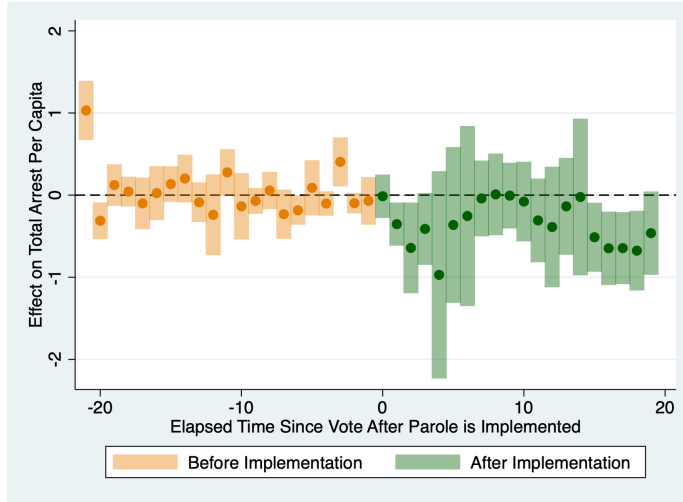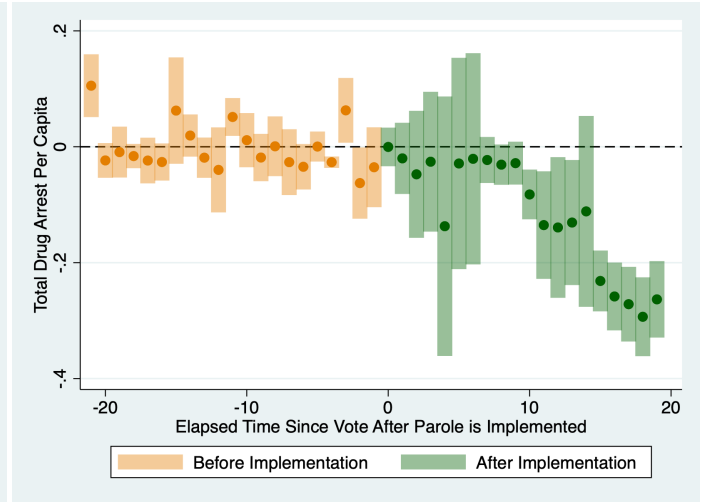
(a) Total Arrests

(b) Total Drug Arrests

(c) Black to Total Arrests Ratio

(d) Black to Total Drug Arrests Ratio.

Figure 2: Effect of Implementing Vote After Prison. *Note: There are 765 observations*

3.2 Event Study Results and Discussion

1. Vote after prison has insignificant or modest effect on overall arrest per capita and drug arrest per capita.

2. Vote after prison increase the black to total arrest ratio by approximately 5 percentage points after 4 years. It also increase the black to total drug arrest ratio by approximately 5 percentage points after 4 years before jumping to above 10 percentage points after 10 years of implementing the voting rule. Rhode Island primarily drive the long-term postive effect

3. Vote after parole has an overall insignificant effect on total arrests and black-total drug and arrests ratio. However, drug arrest per capita decrease approximately 0.3 points after 15
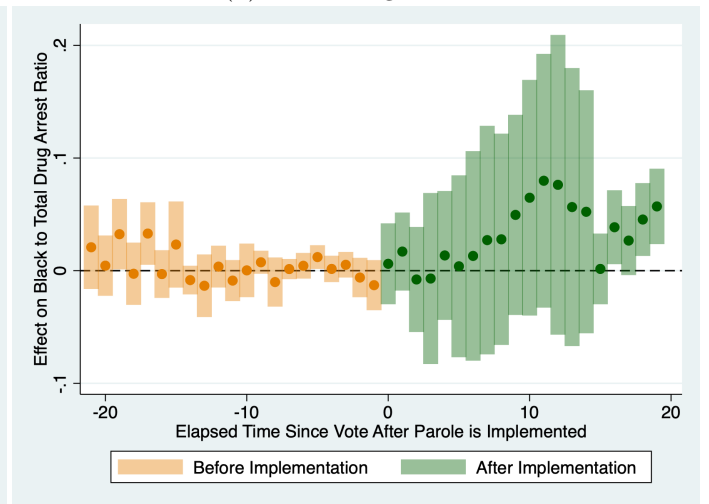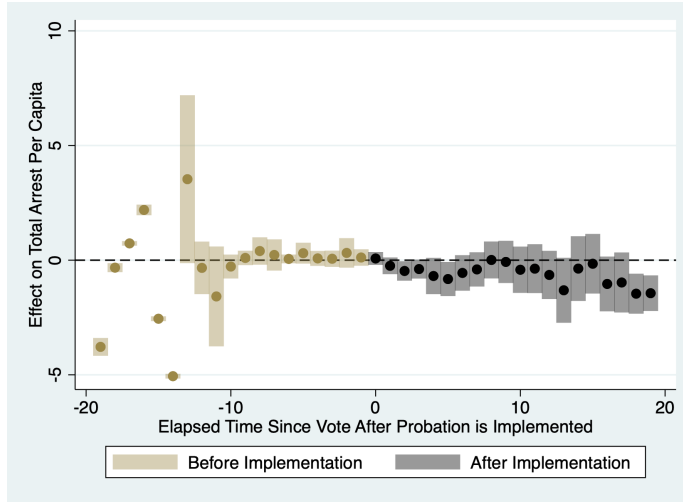
(a) Total Arrests

(b) Total Drug Arrests
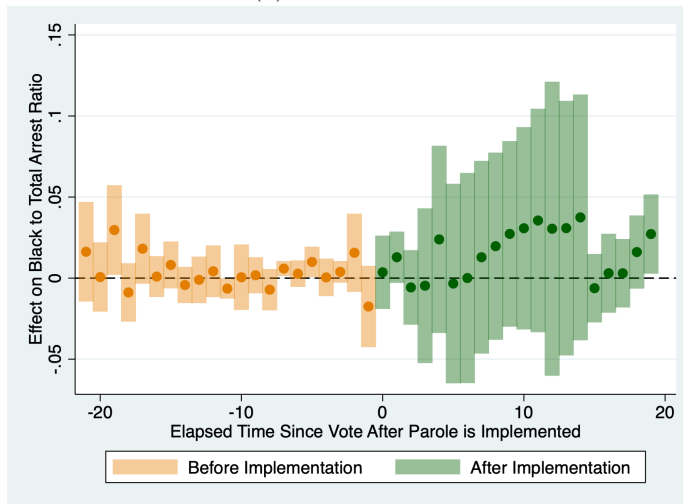
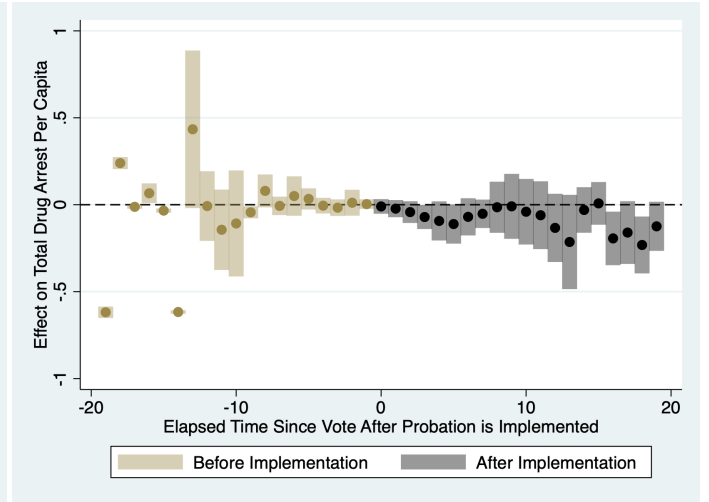(c) Black to Total Arrests Ratio
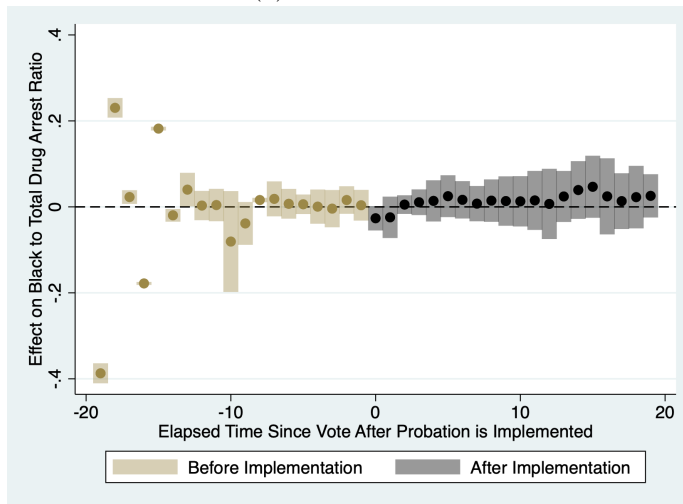
(d) Black to Total Drug Arrests Ratio.

Figure 3: Effect of Implementing Vote After Parole. *Note: There are 677 observations*
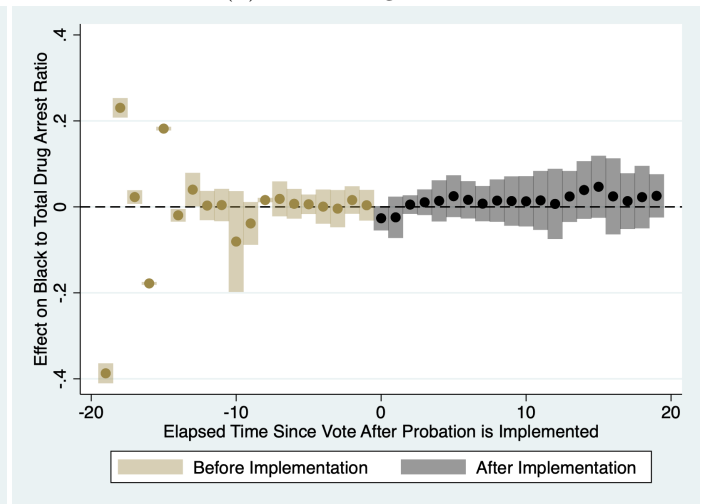
(a) Total Arrests

(b) Total Drug Arrests

(c) Black to Total Arrests Ratio

(d) Black to Total Drug Arrests Ratio.

Figure 4: Effect of Implementing Vote After Probation. *Note: There are 262 observations*

years of implementation.

4. Vote after probation has an overall insignificant effect on all dependent variables. This result is primarily driven by the fact that most states were initially treated therefore had to be removed.

The main concern of this study is the lack of data availability post-2021 when most state started liberalizing its voting laws. Hence, we must caution to infer any causality from our study. To improve our study, we have to wait at least 10 years to study the full effect of felon re-enfranchisement on black criminalization to derive the variation we need for causal inference. In fact, while Rhode Island showed an increase in black to arrest ratio, Maryland exhibit an opposite effect which actually dilute the effect in the first 4 years but then the ratio jumped drastically in the 5th year.

For each cohort of states except Maryland, vote after prison have a positive effect towards increasing the representation of black people in arrests and drug arrests (although only Rhode Island is significant).

While giving former felons the right to vote after parole did decrease the total drug arrest per capita, there is little evidence that these reforms reduce black criminalization as proxied by the black to arrest ratio. In fact, for vote after parole, the black to total drug arrest ratio increase (significant) after 15 years while total drug arrests decrease.

To increase the robustness of the black to total ratios for vote for prison result, I have also conducted the event study with population controls and economic controls. Political controls are not included due to large amounts of data being omitted. Below is the result for the overall ATT for different specifications:

	Overall ATT		
	(1)	(2)	(3)
Black to Total Arrests Ratio	0.032**	0.017*	0.032
	(0.015)	(0.009)	(0.020)
Black to Total Drug Arrests Ratio	0.049	0.037	0.067**
	(0.030)	(0.028)	(0.030)
Obs	765	732	728
Population Controls		✓	✓
Economic Controls			✓

Note: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$. Population controls include share of black people, hispanic people, black people in 2000 and hispanic people in 2000, under-19, and over 65 population. Economic controls include GDP per capita, growth rate of GDP, unemployment, state surplus/deficit.

Table 3.1: Event Study with Controls
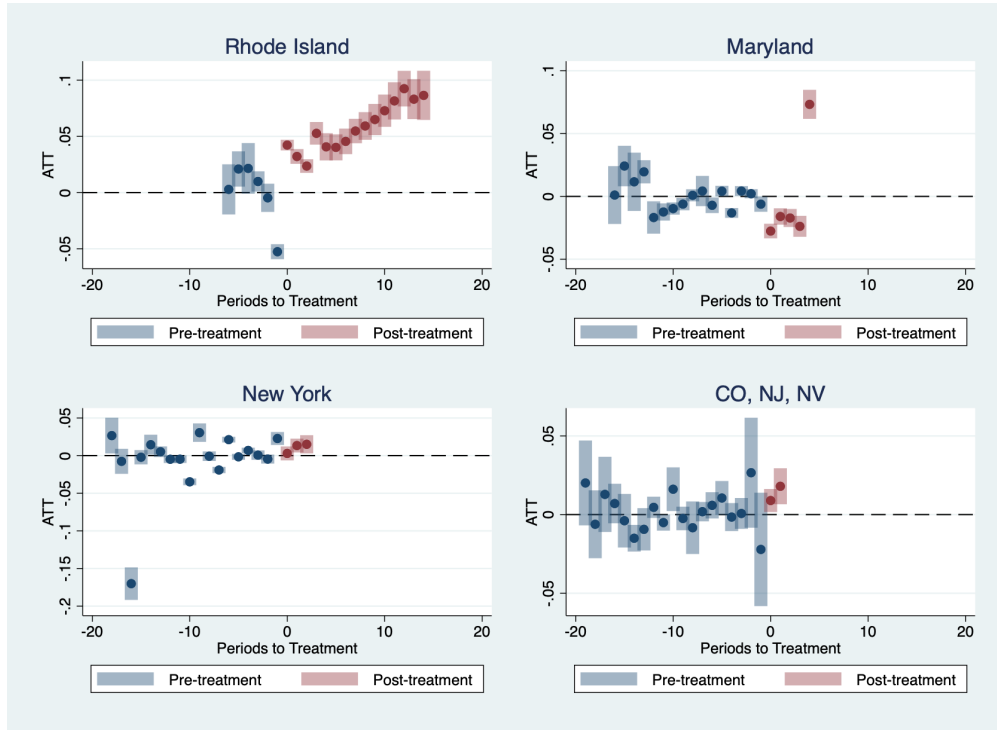
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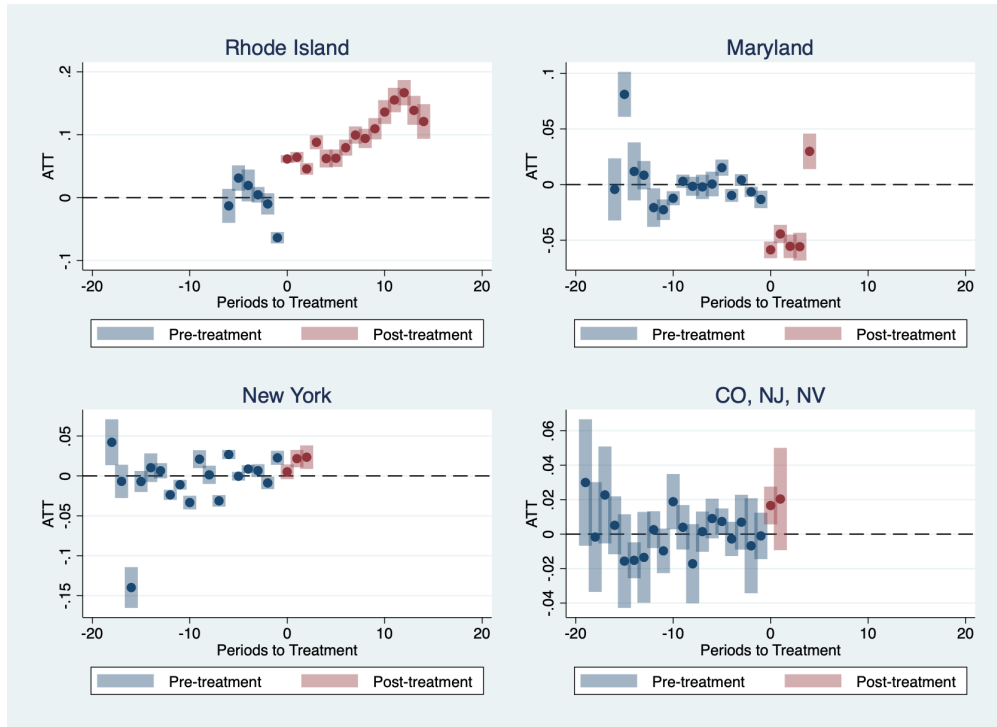
(b) Black to Drug Arrest Ratio

Figure 5: Group ATT for 2006, 2016, 2018, 2019 Cohorts
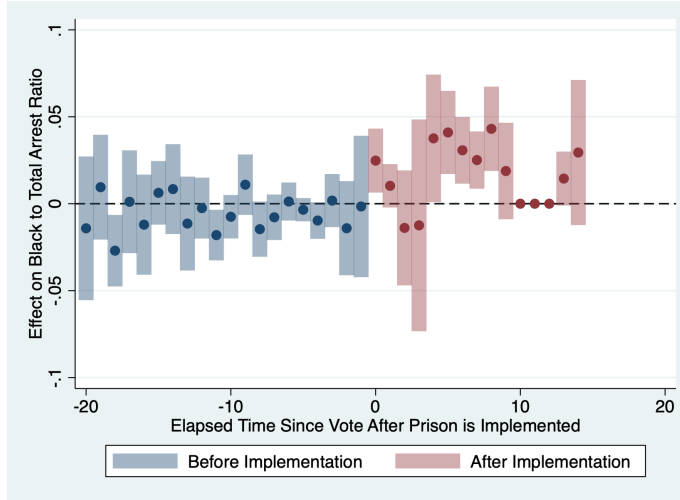
(a) With Population Controls
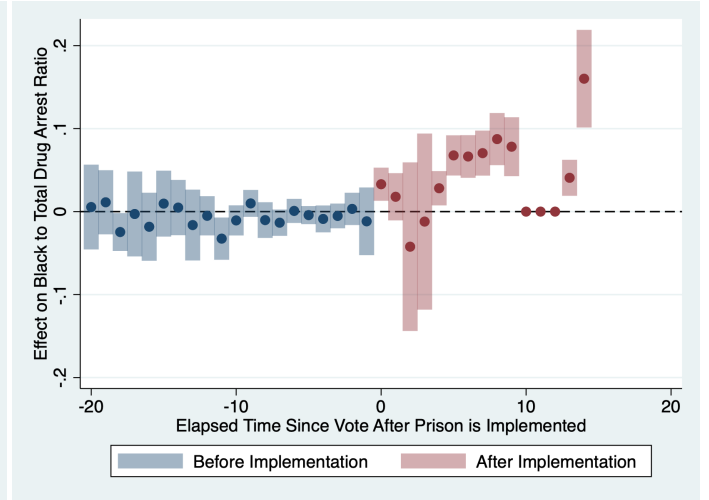
(b) With Population Controls
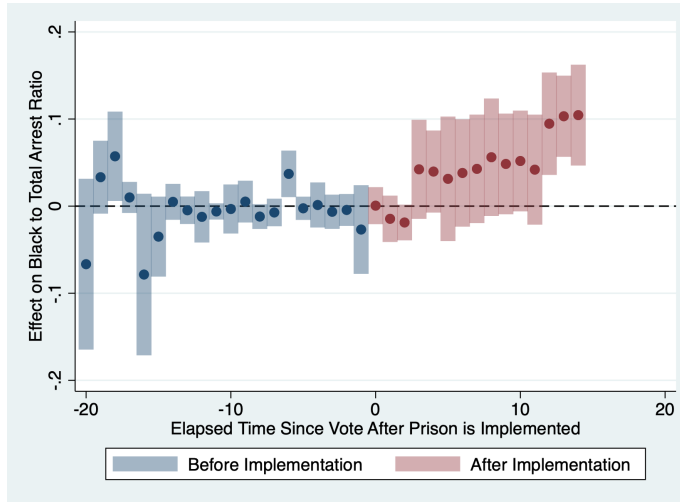
(c) With Population and Economic Controls
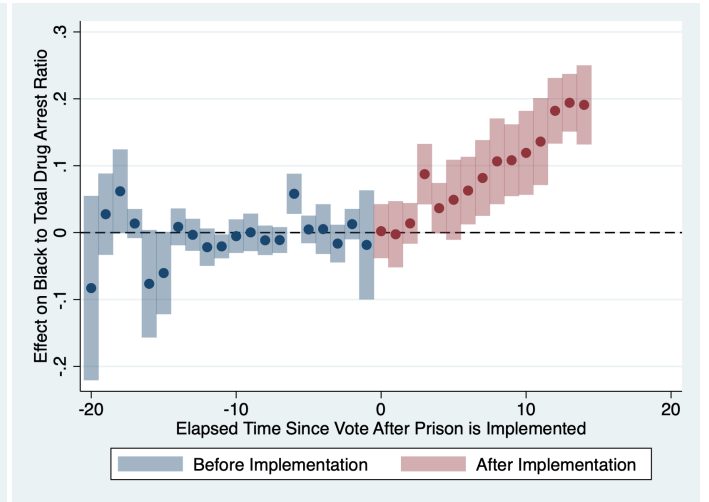
(d) With Population and Economic Controls

Figure 6: Effect of Vote After Prison on Black to Total (Drug) Arrests *Note: There are 732 observations for population controls and 728 for population and economic controls*

As observed above, the direction of the ATT is the same for specifications with or without the controls although the data is much more noisy with addition of controls.

For the activists' hopes (at least for current data availability), the event study model suggests that the reforms have limited short-term effect on improving black criminalization. If the direction of black to total arrest ratio trends in states that began to liberalize in 2019 go the same way as Rhode Island and Maryland, then the long-term effect of enfranchising former felons after prison may worsen black criminalization.

4 Robustness Checks

As seen in the event study plots, the pre-trends coefficient hovers around 0 i.e. it is not significant. This gives us some form of first filter of parallel trends, but it does not guarantee that parallel trends is satisfied. Following Rambachan and Roth (2023), I conducted a sensitivity analysis to see if my design is robust to violations of parallel trends. The intuition behind using sensitivity analysis is the idea that we create the counterfactual post-treatment with pre-trends. Therefore, we impose a restriction that counterfactual difference in trends cannot be too different from the pre-trends i.e. suppose if we assume that parallel trends break, how far can it break until we can rule out the validity of our effect? Sensitivity analysis gives us a way to bound the treatment effect and obtain a "uniformly valid confidence sets" (Rambachan and Roth 2023). The pre-trend period that I chose to conduct the sensitivity analysis is the entire period before treatment for not-yet treated whereas post-trend period is the entire period after treatment (in addition for the entire period for never-treated).

	Black to Total Arrest		Black to Total Drug Arrest	
	Lower Bound	Upper Bound	Lower Bound	Upper Bound
M = 0	0.001	0.027	-0.012	0.047
M = 0.5	-0.029	0.049	-0.032	0.067
M = 1.0	-0.047	0.076	-0.055	0.093
M = 1.5	-0.075	0.105	-0.084	0.122
M = 2.0	-0.104	0.133	-0.114	0.153

Table 4.1: Sensitivity Analysis for Black to Total (Drug) Arrest Ratio

To summarize the table above:

- For black to total arrest ratio, the positive effect we see after implementing vote after prison is robust up to the value $M = 0$. That means we can say that voting after prison has a significant positive effect on black to total arrest ratio unless we are willing to accept that the post-voting rule differences in trends is no different than the largest difference in trends prior to voting rule. This is problematic because there is no room for our effect to survive unless with strict parallel trends. Not only that, $M = 0$ also do not rule out the possibility that our design fulfill parallel trends before the treatment.

- For black to drug arrest ratio, the positive effect we see is not robust for any values of M. We can invalidate the positive effect here.

Now, suppose we are giving the design the benefit of the doubt and argue that since the effect do not fully kick-in until the 4th year, why not use 4 years after treatment as our post-trend and maintaining our pre-trends – do we see a robustness increase?

	Black to Total Arrest		Black to Total Drug Arrest	
	Lower Bound	Upper Bound	Lower Bound	Upper Bound
M = 0	0.032	0.082	0.021	0.072
M = 0.5	0.015	0.096	0.003	0.090
M = 1.0	-0.011	0.121	-0.024	0.119
M = 1.5	-0.039	0.148	-0.054	0.149
M = 2.0	-0.068	0.177	-0.086	0.181

Table 4.2: Liberal Sensitivity Analysis for Black to Total (Drug) Arrest Ratio

Even with the addition of more liberal sensitivity analysis, we can say that the voting after prison has positive significant effect on black to total (drug) arrest ratio unless we are willing to accept that there is a 0.5 times difference between the post-treatment parallel trend violation and the maximal pre-treatment violation. Even when we put the design at its most favorable to give us an effect, we need a lot of restrictive assumptions for our explanatory variable to be causal. Therefore, I do not think that there is any positive effect towards black to total (drug) arrest ratio following the adoption of vote after prison. Hence, although re-enfranchising former felons have limited effect on improving black criminalization, we can rejoice at the fact that felon re-enfranchisement may not worsen black criminalization after all (unless of course time will prove us wrong once we get new data from other states).

5   Discussion

So why is our vote after prison's effect on black criminalization insignificant? The most obvious reason is data availability – there is just not enough time to observe a systematic trend such as the ones we see in Maryland (reduction in black to total arrest ratio) and Rhode Island (increase in black to total arrest ratio). The second reason is that these reforms do not challenge the structural status quo as other reforms in the past such as the Voter Rights Act or the Brown vs Board reforms i.e., re-enfranchisement reforms target the demand-side (former felons) and do not address the underlying discrimination in the police departments across the country. Also, these reforms seemed to be partisan i.e., most of the states liberalizing its laws are Democrat-held, which seemed to point towards an alignment of political incentives as opposed to the sincere desire of reducing racial discrimination. While felon re-enfranchisement may not have an empirical basis to yield favorable outcomes for black Americans, these findings suggests a normative basis for giving former felons the right to vote instead.

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Appendix

Voting Laws in Each State for Former Felons

Voting Rule	State
Voting After Prison	California (2020), Colorado (2019), Connecticut (2021), Hawaii, Illinois, Indiana, Maine, Maryland (2016), Massachusetts, Michigan, Montana, Nevada (2019), New Jersey (2019), New York (2018), New Hampshire, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island (2006), Utah, Vermont, Washington (2021)
Voting After Parole	South Dakota (repealed in 2012)
Voting After Probation	Alaska, Arkansas, Delaware (2013), Florida (2018), Georgia, Idaho, Iowa (2005, repealed 2011, reinstated 2021), Kansas, Kentucky (2019), Louisiana, Minnesota, Mississippi, Missouri New Mexico (2001), North Carolina, Oklahoma South Carolina, South Dakota, Texas, West Virginia, Wisconsin

Table 5.1: Laws of Each State

Reverse Causality of the OLS

	Vote After Prison	Vote After Parole	Vote After Probation
	(1)	(2)	(3)
Total arrest over population	−0.151***	−0.160***	−0.067****
	(0.009)	(0.009)	(0.008)
Drug arrest over population	−0.705***	−0.670***	−0.318***
	(0.068)	(0.073)	(0.059)
Black Drug Arrests to Total Drug Arrests Ratio	−0.565***	−0.677***	−0.200***
	(0.074)	(0.077)	(0.062)
Black Drug Arrests to Total Drug Arrests Ratio	−0.565***	−0.677***	−0.200***
	(0.074)	(0.077)	(0.062)

Note: ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 5.2: The Arrest Rate as Explanatory Variable and Voting Rule as the Outcome Variable

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